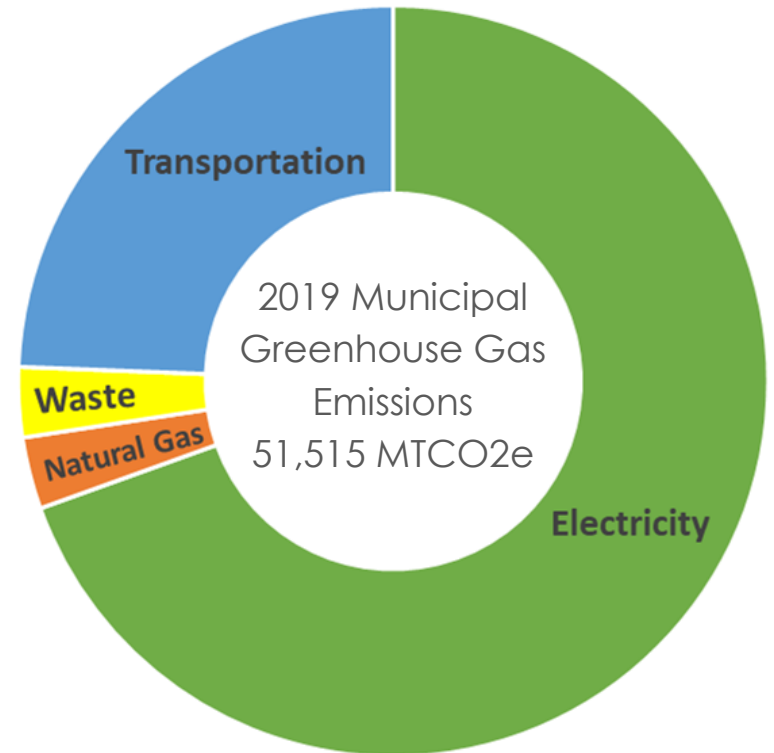
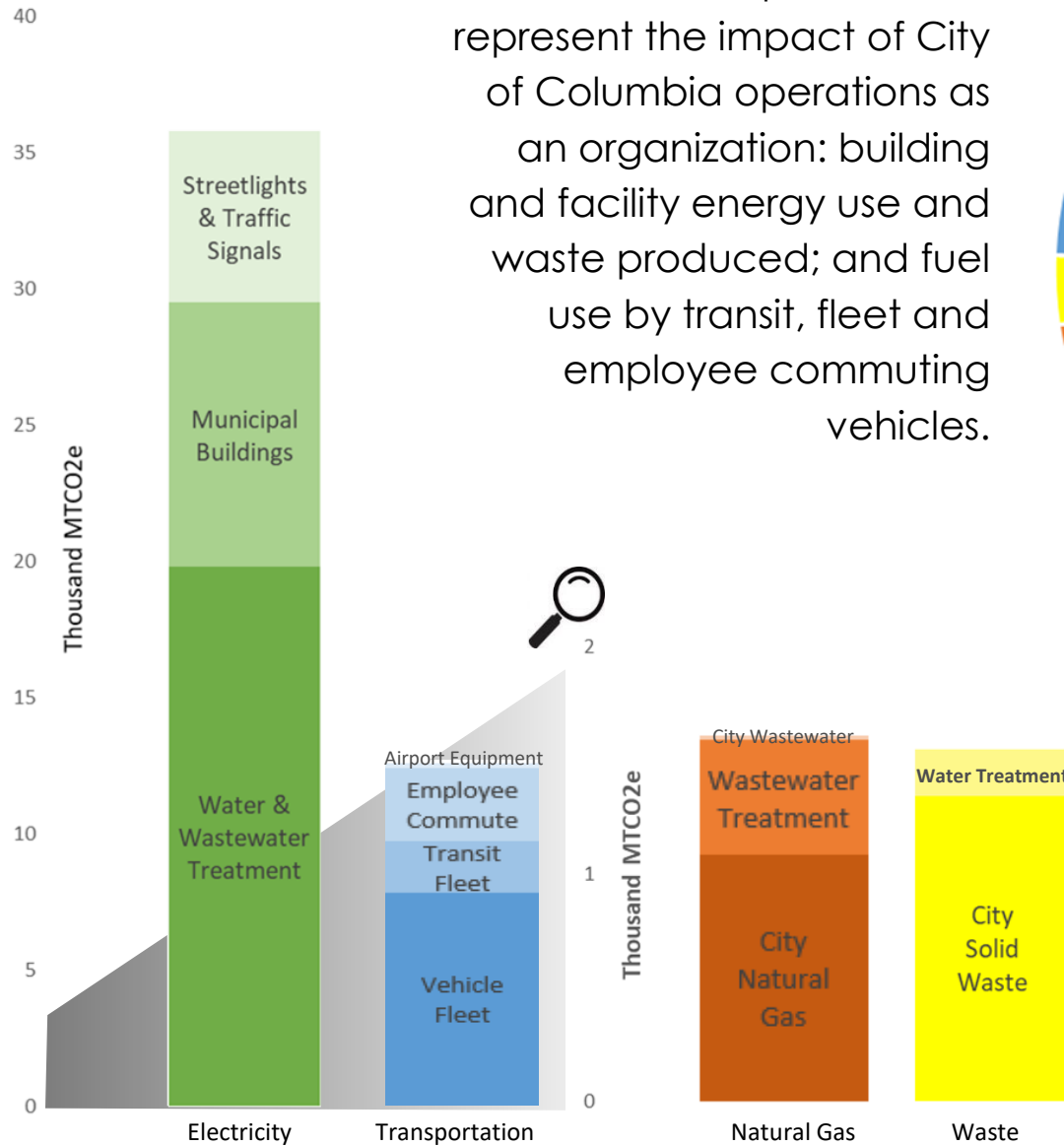


# City of Columbia 2019 Municipal Emissions Report

The emissions reported here represent the impact of City of Columbia operations as an organization: building and facility energy use and waste produced; and fuel use by transit, fleet and employee commuting vehicles.

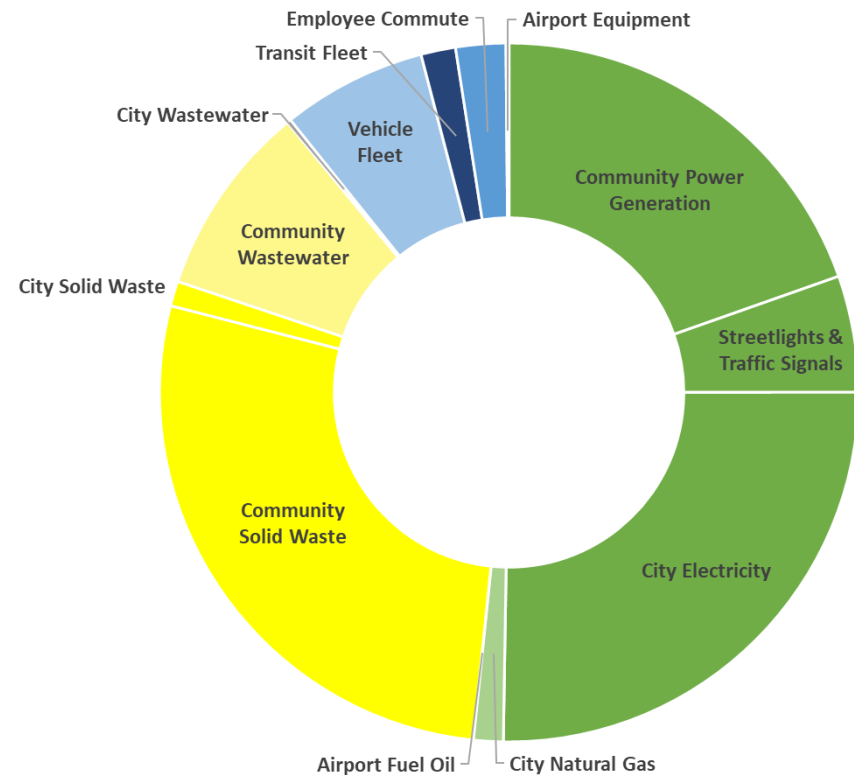


This report includes emissions associated with energy use and waste produced by municipal operations only. Community energy production and waste treatment process emissions account for an additional 65,223 MTCO<sub>2</sub>e.

# 2019 Municipal Emissions Including Community Power Generation & Community Waste Processing Emissions

## GHG Emissions by Sector & Source

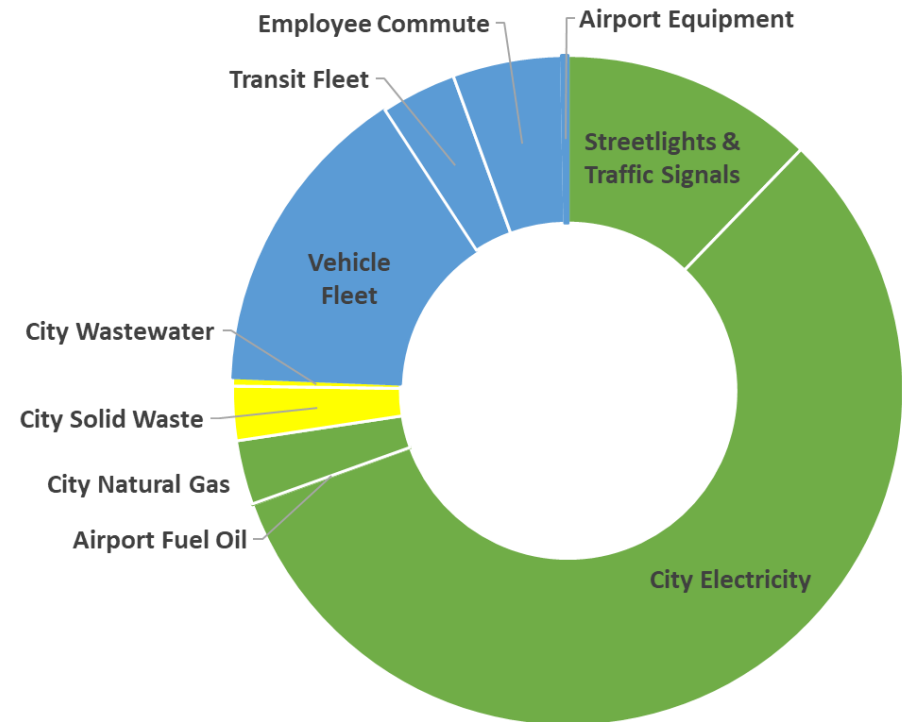
Total City of Columbia		MTCO <sub>2</sub> e
<b>Energy</b>		<b>60,288</b>
	Community Power Generation	22,883
	Streetlights & Traffic Signals	6,291
	City Electricity	29,501
	City Natural Gas	1,593
	Airport Fuel Oil	20
<b>Waste</b>		<b>43,891</b>
	Community Solid Waste (Landfill)	31,932
	City Solid Waste	1,344
	Community Wastewater	10,408
	City Wastewater	207
<b>Transportation</b>		<b>12,558</b>
	Vehicle Fleet	7,821
	Transit Fleet	1,871
	Employee Commute	2,701
	Airport Equipment	165
<b>TOTAL</b>		<b>116,738</b>



Columbia, MO provides a full range of services to the community, including electricity, solid waste and wastewater treatment. These services also contribute to the greenhouse gas emissions for Columbia as a community and a municipal organization. The above calculations include emissions from both municipal operations and community services provided. Emissions from the electricity generating assets controlled by the City of Columbia represent 22,883 MTCO<sub>2</sub>e (20%) of the 2019 municipal inventory. Community solid waste and wastewater emissions total 42,340 MTCO<sub>2</sub>e (36%) of the 2019 municipal inventory. Reporting total emissions from these municipally controlled waste and energy sources is important and will continue to inform broader process changes and our progress toward meeting reduction goals. In order to more directly report the impact of our daily operations on the municipal inventory, the analysis below removes emissions of non-municipal activities from the energy and waste sectors.

# 2019 Emissions from Municipal Operations

GHG Emissions by Sector & Source	
Municipal Operations	
Energy	MTCO <sub>2</sub> e
City Electricity	29,501
City Natural Gas	1,593
Streetlights & Traffic Signals	6,291
Airport Fuel Oil	20
<b>Waste</b>	<b>1,551</b>
Facility Solid Waste	1,344
Facility Wastewater	207
<b>Transportation</b>	<b>12,558</b>
Vehicle Fleet	7,821
Transit Fleet	1,871
Employee Commute	2,701
Airport Equipment	165
<b>TOTAL</b> (excluding non-municipal process emissions)	<b>51,515</b>



The distribution of City of Columbia's operational emissions across sectors resembles that of the Community's sector emissions. 73% of emissions come from facility energy, 24% come from transportation and 3% come from waste process emissions. Electricity usage by City facilities and buildings accounts for 79% of energy emissions and 57% of all operations emissions. Streetlights and traffic signals account for 17% of energy emissions and 12% of all operations emissions. Facility use of natural gas and fuel oil (airport use only) make up the remaining 4% of energy emissions and represent 3% of total operational emissions.

Municipal waste emissions are made up of wastewater at 13% and solid waste at 87%. They are the fraction of total process emissions from the municipal landfill and wastewater treatment plant estimated to be from municipal wastewater and solid waste.

Transportation emissions are comprised of Columbia Regional Airport equipment, the City of Columbia's fleet and transit vehicles, and employee commuting activity. Fleet vehicle activities make up 62% of municipal transportation emissions and 15% of total operational emissions, transit activities contribute 15% to transportation and 4% to total municipal operation emissions, and employee commute contributes 22% and 5%, respectively.